Standley Household and Butcher Shop Water Usage

According to the DNRC website, an exempt well usage is limited to <u>35 gpm and 10 acre feet per</u> <u>year.</u> We are family of 5.

There are 325851.42 gallons in 1 acre foot

35 gpm = 50,400 gallons/ day

USGS says on average 1 person uses 80-100 gallons per day (usgs.gov).

1 person = 100 gal/day x 365 days/ year = 36,500 gal/ year

36,500gal/ year / 325851.42 gal/ acre foot = .11201 acre feet / year

.11201 acre feet/ year/ person x 5 people = .56005 acre feet/ year for a family of 5

Estimated water usage per species that will be processed at our butcher facility:

4-6 Beef (450 gal each) $6 \times 450 = 2700$

3-4 Hogs (200 gal each) $4 \times 200 = 800$

3-4 Lambs (150 gal each) $4 \times 150 = 600$

Total 4100 gal / week / 7 days/ week = 584.11 gal / day

 $4100 \text{ gal } \times 52 \text{ weeks} = 213,200 \text{ gal/ year}$

Total water usage for the butcher facility:

213,200 gal/ year / 325851.42 gal/ acre foot = **.6543 acre feet / year**

Total usage for household and butcher shop:

.56005 acre feet + .6543 acre feet = **1.21435 acre feet / year**

In conclusion, DNRC states an exempt well is allowed 10 acre feet/year. We will be well below that limit with both our home and with adding the butcher facility at just over 1 acre foot annually of water usage. Additionally, we can draw up to 35 gallons a minute from an exempt well. We have a 20 gallon/minute pump in our well. On average, we will be using 1,084 gallons/day, which is well under the 35 gallon/minute usage limit. These numbers are based on the butcher facility being in operation 52 weeks/year, which is more than our business hours will require. Therefore, we are confident we can run this business efficiently and prudently in regard to water usage.

Hobbs, Amber R.

From:

Todd Standley <toddstandley86@gmail.com>

Sent:

Wednesday, October 28, 2020 2:59 PM

To:

Hobbs, Amber R.

Subject:

Re: Comment Concerning Waste

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

It should read 5 - 50 gallon barrels.

On Wed, Oct 28, 2020, 1:31 PM Hobbs, Amber R. ahobbs@cascadecountymt.gov wrote:

Good Afternoon Todd,

I received a comment from a property owner, that might have talked with you, that there is possibly a typo on the amount of waste that will be produced (5, 5 gallon barrels per week). If this is the case, I will need to note the change when I present the Staff Report tomorrow morning. If not, and 5, 5 gallon barrels per week is the correct estimate, I will keep the report how it currently is. Please let know as soon as possible.

Thank you,

Amber Hobbs

Cascade County Planner

121 4th St N, Suite 2 H/I

Great Falls, MT 59401

Phone: 406-454-6905

Disclosure: This email is public information subject to public records disclosure laws which has been created or received on an electronic mail system in the course of county business and includes any electronic record attachment(s), unless otherwise protected from disclosure under the laws of the State